

No. 570

A Science Service Feature

March 9

? WHY THE WEATHER ?

By Dr. Charles F. Brooks
of Clark University.

WHY VALLEYS GET LESS SNOW

The difference in snowfall between hills or mountains and neighboring valleys is not simply the result of air temperatures being higher in the valleys. Hills generally, by virtue of the cooling upward thrust they give to passing winds, tend to have more precipitation than lowlands. In the season when this precipitation is in the form of snow there is likely to be more on the mountains and hills from this cause alone. But such a difference as is caused by this factor is greatly augmented by both melting of snowflakes in the air as they fall into the valleys and the melting of snow on the bare ground. The snow may fall all day long, yet melting on the ground takes place too rapidly to allow any to accumulate, in which case the snowfall must be recorded as merely a "trace". In the same period four inches may have accumulated on neighboring hills where an old snow surface or colder ground permitted. In the diagram an attempt has been made to show such a condition. In a spring month, hill country only a few hundred feet above neighboring lowlands may thus get two or more times the snowfall of the lowlands.

(Editors: Pick up one column diagram on snow falling.)

(Tomorrow: More Snow in Country Than City)

All rights reserved by Science Service

SCIENCE SERVICE,
B and 21st Sts.,
Washington, D.C.